



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/736,611 | 12/17/2003 | Lars-Olof Svedberg | | 4065 |

7590 12/23/2005
David J. Serbin
1217 King Street
Alexandria, VA 22314

EXAMINER

ZEMEL, IRINA SOPHIA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1711

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/736,611

Applicant(s)

SVEDBERG ET AL.

Examiner

Irina S. Zemel

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-27 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 1-17, 21, 24 and 25 is/are allowed.
6) ☐ Claim(s) 18, 20, 22, 23, 26 and 27 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The applicants note inconsistency of the claims rejected and claims indicated allowed on pages 3 and 4 of the previous office action. The applicants are correct in their assumption that claim 25, not claim 23 should be indicated allowable (as evidenced from the rejection of claim 23 over Zakich, and since claim 25 was not included in any of the rejections). The Examiner regrets any inconvenience this inadvertent error may have caused the applicants.

Claim Rejections - 35 USC § 102/103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 18, 20, 22 and 26-27 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US Patent 4,958,933 to Zakich (hereinafter "Zakich").

Claim Rejections - 35 USC § 103

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zakich.

Both rejections stand as per reasons of record. The applicants should note, that claim 18, which is indicated as being "currently amended" does NOT contain any new amendments and was presented in exact the same form in the applicants response dated 3-28-2005.

Response to Arguments

Art Unit: 1711

Applicant's arguments filed 10-5-2005 have been fully considered but they are not persuasive. The applicants argue that Claim 18 recites that the scrapers are mounted on the feeding means and extending radially beyond the outer radius of the feeding means toward the inner surface of the hollow body and that this feature is not present in Zakich, which describes blade members 52 present only at the wiper section of the screw 30, which does not constitute any feeding means. On the other hand, the feeding means in Zakich i.e. the flight's section of the screw 30, does not include any blade members or any other kind of scrapers. The examiner can not agree with such interpretation of the device disclosed by Zakich. As clearly stated in the reference, the device comprises "a compound feed screw 30, which includes a flight section, generally 31, and a wiper section, generally 33." See Column 3, lines 34-38. Thus, the entire screw 30 constitutes (compound) feed screw, which includes the wiper section 33. It is not clear why the applicants consider only one portion of the feeding screw to be "feeding means", when the reference expressly states that both sections (31 and 33) constitute the feeding screw. In this respect, it is irrelevant whether the flight section comprises blades, since the only requirements of the instant claims is that the "scrapers are mounted on the feeding means and extending radially beyond the outer radius of the feeding means toward the inner surface of the hollow body", in the instant case, the scrapers are 54 (37) and they are mounted on the feeding screw 30. As also evident from the disclosure, the molten plastic travels to the exit point 47, and does not get discharged from the cooler extruder at any intermediate point, thus supporting the

Art Unit: 1711

examiner position that the wiper section of the screw also constitutes a part of the “feeding” means.

As for the argument that “sing the device of Zakich for expanding thermoplastic microspheres would involve the risk of condensing of microspheres in the wiper section as the driving force from the feeding means would be insufficient”, this argument is purely speculative. As disclosed in the reference, the molten plastic successfully travels from the end of the flight section through the wiper section to the exit point 47 without any problems, thus indicating that there is enough driving force to displace the plastic, and the driving force to displace expanded beads should be even less than the force required for molten viscous plastic. In the absence of the factual evidence to the contrary, it is still considered that the device disclosed in Zakich is fully capable for production of expanded beads.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1711

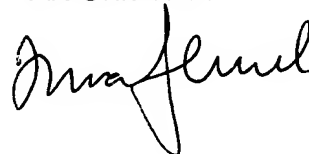
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

.Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Irina S. Zemel
Examiner
Art Unit 1711



ISZ